

Appl. No. 09/827,671  
Amendment dated July 29, 2004  
Reply to office action of June 29, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of claims:**

1. (original) A single-channel RF weather monitoring and display system displaying information at one location representative of weather monitored at multiple, other locations remote from said one location, comprising:

a portable, battery-powered and hand-holdable weather station, deployable at each of said remote locations, including a housing; a sensor connected to said housing for measuring a predetermined parameter representative of the weather prevailing in the environ of said sensor at the location where said station may be deployed; an antenna mounted to said housing; means for setting station ID; and a processor-controlled transmitter mounted in the housing and coupled to said sensor, said station ID setting means and said antenna repetitively operative (1) to compile a data packet having information representative of station ID and of said weather parameter sensed by said sensor at said location where said station may be deployed, (2) to generate a unique schedule of at least one transmission times in such a way that the unique schedule of at least one transmission times does not overlap in time with that of other remote locations where portable, battery-operated and hand-holdable weather stations may be deployed and, in accord therewith, to schedule a time to transmit said data packet, and operative (3) to modulate a predetermined-

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16 frequency RF carrier wave to transmit said data packet at said scheduled time to enable at said one  
17 location contention-free receipt over said single-channel of data packets transmitted from said  
18 multiple, remote locations where portable, battery-powered and hand-holdable weather stations  
19 may be deployed.

1 2. (original) The single-channel RF weather monitoring and display system displaying  
2 information at one location representative of weather monitored at multiple, other locations remote  
3 from said one location of claim 1, wherein said unique schedule is a random schedule.

1 3. (original) The single-channel RF weather monitoring and display system displaying  
2 information at one location representative of weather monitored at multiple, other locations remote  
3 from said one location of claim 1, wherein said unique schedule is a schedule of predetermined  
4 times.

1 4. (original) The single-channel RF weather monitoring and display system displaying  
2 information at one location representative of weather monitored at multiple, other locations remote  
3 from said one location of claim 3, wherein said predetermined times are determined as two phase  
4 schedules consisting of alternating transmit times defined by {period + phase} and {period -  
5 phase}.

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6 5. (original) A battery-powered RF weather monitoring and display system, comprising:

7 a portable, battery-powered and hand-holdable weather station, deployable at a remote  
8 location to monitor a predetermined weather parameter and transmit the monitored weather  
9 parameter to a remote, battery-powered base weather station for display, including a housing; a  
10 sensor connected to said housing for measuring said predetermined parameter representative of  
11 the weather prevailing in the environ of said sensor at the location where said portable, battery-  
12 powered weather station may be deployed; an antenna; means for setting station ID; and a  
13 processor-controlled transmitter mounted in the housing and coupled to said sensor and said  
14 antenna repetitively operative (1) to compile a data packet having first information representative  
15 of station ID, second information representative of said weather parameter sensed by said sensor  
16 at said location where said portable, battery-powered and hand-holdable weather station may be  
17 deployed, and third information that enables the remote battery-powered base weather station to  
18 determine time-of-next transmission allowing the same to enter battery-power-conserving mode  
19 until that time, and operative (2) to transmit said data packet to said portable, battery-powered base  
20 weather station; and

21 a portable, battery-powered base weather station operative in response to receipt of a data  
22 packet transmitted by said portable, battery-powered and hand-holdable remote weather station  
23 to recover said first information and display said sensed weather parameter, and to recover said  
24 third information and go into battery power conserving mode until the time of transmission of the

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25 next data packet expected from said portable, battery-powered and hand-holdable remote weather  
26 station.

6. (canceled)

1 7. (original) A multiple station weather monitoring and weather information display system,  
2 comprising:

3 a transmitter station including at least one probe monitoring first and second weather  
4 parameters and transmitting data representative of the first and second weather parameters  
5 monitored; and

6 a receiver station responsive to said data selectably displaying (1) first information  
7 representative of said first weather parameter; (2) second information representative of said second  
8 weather parameter and (3) third information derived from said first and said second weather  
9 parameters in accord with a predetermined relation.

1 8. (original) The multiple station weather monitoring and weather information display system of  
2 claim 7, wherein said first parameter and said first information are temperature, said second  
3 parameter and said second information are percent relative humidity, and said third information  
4 is heat index.